

successive automatic sucking movements (each sucking act being the stimulus for its successor) are present. In normally developing breast-fed infants hunger is not ordinarily an immediate cause of crying. In premature infants under one month the average time required for the development of hunger is one hour and forty minutes, with a maximum of two hours and twenty minutes and a minimum of forty minutes. In full-term infants under two weeks the average time is two hours and fifty minutes with a maximum of four hours and a minimum of two hours. In infants from two weeks to four months the average time is three hours and forty minutes with a maximum of four hours and thirty-five minutes and a minimum of three hours and twelve minutes. This time for the development of hunger in any one infant is fairly constant. In chronic nourishment disturbance the interval is shorter, as it is also when food is poorly tolerated. The hunger contractions occur long before the stomach is empty, so that is not necessarily an indication for more food. Feeble nursing power is not due to derangement of hunger apparatus. In pyloric stenosis hunger contractions are increased.

Appendicitis in Infants.—ABT (*Arch. Pediat.*, September, 1917, vol. xxxiv, No. 9). The diagnosis is very difficult as the symptoms vary greatly from those in older children and adults. The almost complete absence of subjective symptoms in infants makes the diagnosis almost impossible. Pain and tenderness are difficult to elicit and more difficult to localize. Vomiting occurs so frequently in the gastro-intestinal, nutritional and toxic diseases of infants that it is of little value. Muscle spasm or rigidity of the right rectus may be present early, but it is difficult to elicit. Manifest chill, which is rare in childhood, is sometimes noticed early. Temperature is unreliable. The pulse usually follows the temperature. Rupture of the appendix may give temporary amelioration of the symptoms. Constipation is the rule and occurs among the more severe types. Diarrhea is present in the milder types. Traumatism may be a factor in the etiology. There is a hereditary predisposition occurring in certain families. Foreign bodies such as concretions or worms may be the cause. Blood examination reveals a polymorphonuclear leukocytosis. In infants the diagnosis is extremely difficult and the mortality is very high. Rectal examination is of great value.

Empyema; Simple, Interrupted, and Continuous Aspiration.—RICHTER (*Arch. Pediat.*, September, 1917, vol. xxxiv, No. 9). The mortality in this condition is very high. Holt reported a loss of 50 per cent. in a series of 150 cases. Seventy-five per cent. of those in the first year of life were lost. The deaths are due to (1) loss of proteid material from prolonged suppuration. (2) Intoxication of suppuration. (3) Collapse of the infants' lungs, the median diaphragm being so frail that the opposite lung loses much of its volume. The intoxication of suppuration may be controlled by drainage. Incision or drainage does good temporarily, but the child gradually fails and dies during the second, third, or fourth week. This is due to infection plus the loss of large quantities of fluids and proteids. The third factor above may develop acutely immediately after any drainage operation. Pus in pleura differs from abscess elsewhere. It becomes sterile if not con-

taminated from outside. Aspiration is the simplest form of treatment if done in a rational manner. The pus should be aspirated in small quantities, and it is not absolutely necessary to remove all, even in this way, as a small collection of sterile fluid will be absorbed. By removing a small quantity the temperature, respiration, and pulse are favorably influenced. As aspirations proceed the pus becomes thicker. This signifies less acute infection and absorption of the serous element. This is distinctly poorer in bacteria. The author uses an exploratory needle of moderate size and about four feet of rubber tubing. This is filled with sterile water and the needle is inserted in the sixth or seventh interspace; the other end of the tube is allowed to hang in a receptacle containing water. As soon as pus begins to flow the vessel containing the end of the tube should be elevated until the column of water in the tube is not more than two or three feet in height. When infection is not controlled and an increasing degree of intoxication demands different treatment, continuous aspiration is used and usually produces a better result.

Pneumonia in Early Infancy and Childhood; its Mortality and Treatment, with Special Reference to the Use of Alcohol.—KOPLIK (*Jour. Am. Med. Assn.*, November 17, 1917, lxi, No. 20) writes of a study of 1351 cases from 1906 to 1914 and of 391 cases from 1914 to 1917. The first group consists of cases that were treated with alcohol either entirely or in some cases. The second group consists of cases in which no alcohol was used. The tables show that the younger the infant the worse the prognosis. The greater mortality occurred below the age of one year and that the mortality decreased steadily after the fourth year. All of the cases below the age of one year were of the bronchopneumonic type. Of 248 deaths below the age of ten years, 192 died of or with complications. From the second year up the incidence of complications diminished markedly. The principal complications involved the gastro-intestinal tract. Congenital heart lesions, measles, diphtheria, pertussis, nephritis, sepsis, erysipelas, and tuberculosis of the abdomen were met with. Next to the gastro-intestinal complications the most serious was meningitis. It was invariably fatal when complicating the pneumonia during the first year. In infants there seem to be no difference whether the child was breast-fed or bottle-fed. The treatment recommended is, first, proper nursing and feeding, and second, to support the strength of the patient, being on the lookout for complications and meeting them as quickly as possible. In the first group of 1351 cases there were two distinct periods. The first period is during the years in which whisky was used freely and the second when alcohol was used less and less each year. The second main group comprises the cases in which no alcohol was used. The tables show a decided decrease of the mortality rate for all ages in the cases in which no alcohol was used. In short, the author recommends the expectant or symptomatic treatment of pneumonia, using caffeine, camphor, digitalis, and kindred drugs as the indications arise.